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PDV *OBSERVATIONS*

Comparing Bond Yields: There's more (alot more) than meets the eye (Part I)

Imagine having to decide between two different bonds, A and B. Bond A has a ***coupon yield*** of 7% and B offers a ***yield-to-maturity*** of 5%. Which one is the better investment? The answer, as you might expect, is not as simple as choosing the one with the 7% coupon yield. The appropriate response depends on a whole host of factors, which will be discussed in a three-part article, using the above example for illustration.

Part I of this article will describe the various ways to measure bond yields, and the significance of each in evaluating the attractiveness of competing bonds. Parts II and III, to be featured in future issues of ***Observations,*** will discuss other factors that impact bond yields, such as credit and interest rate risks, prevailing interest rate levels and the outlook for the future direction and level of interest rates. No analysis comparing the attractiveness of two competing bonds would be complete without evaluating these factors.

Inside This Issue:

There are essentially three basic ways to describe the yield offered by a bond: 1) ***coupon yield***, 2) ***current yield***, and 3) ***yield-to-maturity***. The coupon yield is set at and does not change after bond issuance, and is quoted as a percentage of the ***par value*** of a bond. Most bonds have a par value of $1,000 each. So for example, if a corporation issues a bond with a coupon yield of 5%, it means the bond will pay 5% of $1,000 or $50 in interest per year (usually in two semi-annual installments).

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After bond issuance, the coupon yield by itself is not a particularly helpful measure for judging the attractiveness of a bond. This is because the coupon yield fails to take into account the price you would have to pay for the bond, which after bond issuance is almost certain to be different from its par value. Nevertheless, the coupon yield does allow you to calculate the total amount of income payments you will receive each year, by multiplying the coupon yield by the par value of a bond.

The current yield is the total amount of interest payments from the bond each year divided by the price you pay for the bond. The current yield equals the coupon

yield only if the bond is trading at par (which usually only happens at bond issuance). So for example, if a $1,000 par value bond with a 5% coupon yield is now trading for only $900, then the current yield will be $50 (total amount of annual interest payments) divided by $900, which equals 5.56%. Unlike the coupon yield, which remains unchanged after being set at bond issuance, the current yield will fluctuate in response to the changing value of the bond.

Current yield is a better way to measure the attractiveness of a bond than the coupon yield because it takes into account not only the interest income that will be generated by the bond, but also the price you have to pay to generate that income stream.

The third way to measure the attractiveness of a bond is by its **yield-to-maturity (**"YTM"). YTM is an even better yield measure than current yield, because it takes into account the impact on bond yields from compound interest and realization of any capital gains or losses at bond maturity if the bond is held to maturity. YTM addresses the compound interest issue by assuming that the periodic interest payments received by the investor is reinvested at a rate equal to the YTM.

Of course, YTM's accuracy depends on whether the assumptions on which it is based turn out to be true. To the extent that you do not hold a bond to maturity, or the periodic interest payments are not reinvested at the YTM rate (which is quite likely since you may choose to spend the interest payments or invest them in stocks, or be forced to reinvest at different interest rates), the YTM will not give an accurate yield projection. Despite these limitations, generally the YTM is still the best yield measure to use when comparing the relative attractiveness of bonds with different characteristics**.**

Despite these limitations, generally the yield-to-maturity is still the best yield measure to use when comparing the relative attractiveness of bonds with different characteristics.

In the above example, it is therefore necessary to compare the YTM of Bonds A and B. Comparing the coupon yield of Bond A with the YTM of Bond B is misleading. However, the analysis should not only compare the respective YTM of the bonds, but also evaluate whether any yield differences are justified by several other significant factors that will be discussed in Parts II and III of this article.

Buy and Hold: Not a Strategy for All Seasons

We have been told again and again that a buy-and-hold investment strategy is superior to a strategy of trying to time the market. This is good advice, especially with respect to the stock market *as a whole*. While there are plenty of people who are eager to tout their past success in timing the markets, we feel nobody can *consistently* time the markets successfully. Making *wholesale* adjustments in asset allocation, for example, by moving completely out of stocks in anticipation of a stock market crash or in the middle of a bear market does not seem a winning long-term investment strategy, because the crash may not arrive when you expect, or the bear market may end (and a bull market may resume) before you have the opportunity to move back into stocks.

While we feel a buy-and-hold strategy works well with respect to the market *as a*

whole (ie. avoid trying to time the markets by making wholesale adjustments in exposure to stocks *as an asset class*), we do not believe it is advisable to *blindly* adopt a buy-and-hold approach when deciding *the proper holding period for individual stocks.*

The proper holding period should be determined using a value-oriented approach that focuses on the price of a stock in relation to its business prospects in providing a reasonable return on capital over time. Stocks that are undervalued should be held, even if they have appreciated substantially. On the other hand, stocks whose long-term business prospects have deteriorated, or which have become overvalued through appreciation should be sold. A buy-and-hold strategy should not be taken to an extreme since it may lead to complacency in selling overvalued securities.

The proper holding period for a stock also depends on the nature of the company issuing the stock. A buy-and-hold strategy may make more sense for a growth stock like Coca Cola, than a cyclical stock like Chrysler (whose fortunes more closely correspond to business cycles). You should be prepared to sell a cyclical stock if you anticipate that its earnings are going to drop in line with a down cycle for the general economy.

To sum up, following a buy-and-hold strategy blindly by holding onto all stocks without paying attention to their underlying business prospects and valuations or the nature of the stocks (ie. growth versus cyclical), makes just as little sense as trying to time the market.

Price-to-Book Ratio: Strengths and Limitations

As a stock valuation tool, the price-to-book value ratio ("PTB Ratio") probably follows close behind the price-earnings ratio in popularity. This ratio is calculated by dividing the market price of a particular stock by the ***book value*** of the company that issued the stock. **Book value is the excess of the value of a company's assets over the total amount of its liabilities.**

Why do people use the PTB Ratio to value stocks? The idea is that a company's book value represents the amount the company could get if it liquidated itself and sold all its assets, after repaying all its debts. Therefore, some see book value as the *minimum* worth of a company, because it is the realizable value in a worse case scenario, where the company will no longer operate as an ongoing concern. Those who use the PTB Ratio to value companies see those stocks selling for less than book value to be particularly attractive since theoretically you are able to buy into such companies at a discounted price to their ***net*** asset value. It's somewhat like buying $1 worth of net assets at a discount.

With our value-oriented investment approach here at PDV Financial, we also use the price-to-book value ratio as one of many factors in searching for potentially undervalued, and therefore attractive, investments.

The popularity of comparing the market price of a stock to the value of the company's book value or net assets (ie. all assets minus all liabilities) as a way to search for undervalued stocks or "investment bargains" can largely be traced to one of its earliest and most famous proponents, the legendary investor Benjamin Graham. Using a modified version of this net-asset valuation approach to select a diversified stock portfolio, Graham was able to achieve a most impressive investment record over time.

With our value-oriented investment approach here at ***PDV Financial***, we also use the PTB Ratio as one of many factors in searching for potentially undervalued, and therefore attractive, investments. However, to use this ratio effectively as a valuation and screening tool, you must also be aware of some of its limitations, a couple of which are discussed below.

First, because most companies are valued as ongoing concerns rather than as entities in a liquidation mode, a company whose stock is selling above book value is not per se overvalued. The focus on book value is an asset-based valuation approach that focuses on asset values *at a particular point in time*. Such an approach is more appropriate for valuing companies in the process of reorganizing or liquidating in bankruptcy, or ongoing businesses such as timber or other natural resources companies whose primary value might be in the assets they hold, as opposed to the cash flow that can be generated through operating those assets.

On the other hand, companies that have ongoing operations are best valued by the discounted value of the expected *future* level of its cash flow income stream. This means that a company whose stock is trading above book value (sometimes substantially) does not *per se* mean that it is overvalued. To the extent that such a company is able to generate ever increasing levels of cash flow through the use of its assets, it may well deserve to trade at a price that greatly exceeds its book value.

Second, a company whose stock is trading below book value does not necessarily suggest that the stock is undervalued, and therefore an attractive, investment. Recall that book value equals assets minus liabilities. While the liability side of the balance sheet is less susceptible to manipulation (other than by outright fraud of course), companies have great latitude within perfectly legal limits of generally accepted accounting principles to present and adjust asset values. For example, a company with alot of questionable receivables ("a current asset" in accounting lingo) might be overly optimistic and therefore under-reserve for uncollectible accounts, thereby unrealistically inflating the value of the receivables, and in turn the book value.

Another example might be an apparel retailer which is slow in marking down the value of unfashionable merchandise. Unlike last year's model of a television set, which will probably retain a good portion of its value even if outdated, out-of-fashion apparel could lose most of its value very quickly. Any delay in marking down the value of such inventory again seriously distorts book value by painting too rosy a picture.

So while the PTB Ratio is a useful analytical tool for identifying undervalued securities with respect to certain types of companies, it is less effective in valuing other types of stocks. You should be aware that using the PTB Ratio to value a security that is not suited for such analysis might in fact lead to a misleading conclusion about its attractiveness.